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ABSTRACT

The relationship between career indecision subtypes and ego identity development was examined in a study of 423 college students (aged 18-26) who were attending undergraduate psychology classes at five southeastern universities and colleges and who had not yet decided upon a career. The students were divided into the following four cluster groups on the basis of their scores on the Career Factors Inventory: ready to decide, developmentally undecided, choice anxious, and chronically indecisive. A profile analysis technique that included a multivariate analysis of covariance was used to identify relationships among the four cluster groups and the first five stages of Erikson's psychosocial model of identity development--trust, autonomy, initiative, industry, and identity. The ready-to-decide group scored significantly higher on the trust, industry, and ego identity subscales than the developmentally undecided, choice-anxious, and chronically indecisive groups did. The ready-to-decide group also scored highest on the autonomy subscale. On the initiative subscale, however, no significant differences were found between the scores of the ready-to-decide and developmentally undecided groups. Career counseling interventions were suggested for each of the four career decision groups. (Contains 31 references.) (MN)

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# Relationships Between Career Indecision Subtypes and Ego Identity Development

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Running Head: CAREER INDECISION SUBTYPES

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Abstract

Four cluster groups of career undecided college students (N=423) were formed from Career Factors Inventory scores. Cluster groups were compared across Erikson's first five stages of identity development as measured by the Identity Scale (Ochse & Plug, 1986). It was predicted that cluster groups would differ in their resolution of the five stages of identity development, with groups indicating the most decision difficulties reporting the least successful resolution. Using profile analysis through Multivariate Analysis of Covariance, overall profile parallelism, level, and shape were examined. Comparisons of cluster groups within the substages were made. Results indicated that the four cluster groups differed in their degree of successful resolution in the predicted direction. Results were interpreted in light of how variations in degree of psychosocial identity development are related to different types of career decision difficulties. Results were related to career interventions and treatment.

Relationships Between Career Indecision Subtypes

and Ego Identity Development

Why do some people make career decisions with relative ease, while other's struggle with the task indefinitely? Within the area of career development, the problem of career indecision has been studied extensively over the past 20 years (Borgen, 1991). A number of models have been proposed to explain different types of career indecision (Crites, 1969; Goodstein, 1965; Holland & Holland, 1977; Salomone, 1982), but these lack substantial empirical support (Slaney, 1988). Recently, in an effort to view individuals more holistically, it was suggested that the study of career problems be expanded by linking them to theories of human development (Chartrand, Martin, Robbins, McAuliffe, Pickering, & Calliotte, 1994). Additionally, Betz (1990, 1991) has argued for more extensive use of social, cognitive, and developmental theories in counseling research. Viewing career difficulties within a theory of human development has important implications for the evaluation and treatment of individuals who experience career difficulties. The present study addresses the aforementioned need for throy integration by wedding empirical results, career indecision subtypes, with the developmental model of Erik Erikson.

Erikson (1950, 1956, 1959, 1980) proposed eight stages of ego identity development, five of which are experienced during the first twenty years of life. At each stage a certain developmental task confronts the individual, resulting in a crisis.

Each stage is identified by the possible positive and negative outcomes or ego qualities of the psychosocial crisis indicative of the stage: trust versus mistrust, autonomy versus shame and doubt, initiative versus guilt, industry versus inferiority, identity versus identity confusion, intimacy versus isolation, generativity versus stagnation, and ego integrity versus despair. Unsuccessful resolution of an earlier stage crisis will lead to difficulty in resolving each successive crisis and thus decrease the chance of gaining the positive ego quality from that stage.

Erikson wrote that career decisions are one way in which the ego identity expresses itself. Important and useful information about ego identity development and career decision making may be discovered through finding links between these two areas. Most empirical research linking ego identity development and career development variables has focused on the fifth stage, identity versus identity confusion. Relationships between variables such as the processes of career exploration and commitment (Blustein, Devenis, & Kidney, 1989a; Blustein, Ellis, & Devenis, 1989b), decision making style (Blustein & Phillips, 1990), and career indecision (Vondracek, Schulenberg, Gillespie, & Wahlheim, 1993) have been studied using Marcia's (1966, 1980) taxonomy of crisis and commitment outcomes of fifth stage resolution.

A few researchers have investigated links between career development variables and resolution of more than one psychosocial stage. Weyhing, Bartlett, and Howard

(1984) found that individuals scoring higher on career decidedness were also more successful in resolving the crises of the 4th and 5th stages. Munley (1975) found that individuals for whom career choice, interest level, and aptitude level were in agreement had developed mature career attitudes and had also been more successful in positively resolving the first six psychosocial stage crises than those whose vocational choices were in disagreement with thier interest or aptitude level. Notably, individuals who had not yet made a career decision had the lowest scores across all six identity stages. Valliant and Valliant (1981) conducted a longitudinal study in which correlates of successful resolution of the fourth stage, industry versus inferiority, were identified. Valliant and Valliant found that successful resolution of the fourth stage was highly correlated with vocational adjustment, positive mental health, and career satisfaction.

Overall, research on psychosocial stage resolution supports the contention that psychosocial development influences career development, especially career decision making. Within the career decision making literature, most recent research has focused not on the larger picture of psychosocial development, but on the smaller picture of career indecision. For example, the differential approach to studying career indecision involves identifying sources and types of decisional difficulty. Historically, career indecision has been viewed as a developmentally appropriate difficulty resulting from a lack of information about the self or the world of work. On the other hand, career indecisiveness has been viewed as a more generalized problem resulting from

such things as excessive anxiety and low self-esteem (Crites, 1969; Goodstein,1965; Tyler,1961). Over the last thirty years many theories have been developed to explain the distinction between the two types of career undecidedness, but a clear empirical distinction has yet to be established. This has partially been due to difficulties in measuring the constructs. With the advent of better measures of career undecidedness, such as the Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, and Koschier, 1976) and the Career Factors Inventory (CFI;Chartrand, Robbins, Morrill, & Boggs, 1990) recent research has begun to make some headway in identifying multiple antecedents or sources of career indecision. For instance, low vocational identity, low goal stability, low self-esteem, low problem-solving self-confidence, high anxiety, a need for career information, and a need for self knowledge have been identified as antecedents to career indecision (Chartrand et al., 1994).

Another way to study indecision is through the process of cluster analysis, whereby individuals who experience similar types of indecision are grouped together. Groups are then used as a basis for differential diagnosis and treatment planning. This approach to understanding career indecision was suggested by Holland and Holland (1977) with their three tier description of undecided individuals. Numerous cluster analysis studies have been conducted in which similar groupings have been described (Fuqua, Blum, and Hartman, 1988; Larson, Heppner, Ham & Dugan, 1988; Lucas & Eppperson, 1988, 1990; Callanan & Greenhaus, 1992; Chartrand, et al., 1994).

In general, cluster analyses of undecided individuals reveal four groups of people. One group, here labeled the Ready to Decide group, seems to be those with low anxiety (Fuqua et al., 1988), a good vocational identity (Chartrand et al., 1994), report few barriers to decision making (Lucas & Epperson, 1988, 1990) high self-esteem (Chartrand et al., 1994), internal locus of control (Fuqua et al., 1988). A second group of people, called the Developmentally Undecided group, seem to be those who are emotionally stable but do not yet have a clear picture of themselves or the world of work (Chartrand et al., 1994). These people report a strong need for information (Callanan & Greenhaus, 1988; Larsen et al., 1988; Lucas & Epperson, 1988), high self-esteem, low to moderate anxiety (Chartrand et al., 1994; Fuqua et al., 1988), and moderate vocational identity (Fuqua et al., 1988). There is some indication that they may be struggling with balancing life roles (Lucas & Epperson, 1988). A third group of individuals, called the Choice Anxious group, report high choice anxiety (Chartrand et al., 1994), little need for career information (Larsen et al., 1988), moderate to low self-esteem, low vocational identity (Fuqua et al., 1988), and moderate goal directedness. A fourth group, the Chronically Indecicive group, appears to be those who report numerous antecedents to career indecision (Chartrand et al., 1994, Larsen et al., 1988)), such as high generalized anxiety (Callanan & Greenhaus, 1988), low vocational identity (Fuqua et al., 1988), a high need for career and self information, low goal directedness (Lucas & Epperson, 1990), low self-esteem, and

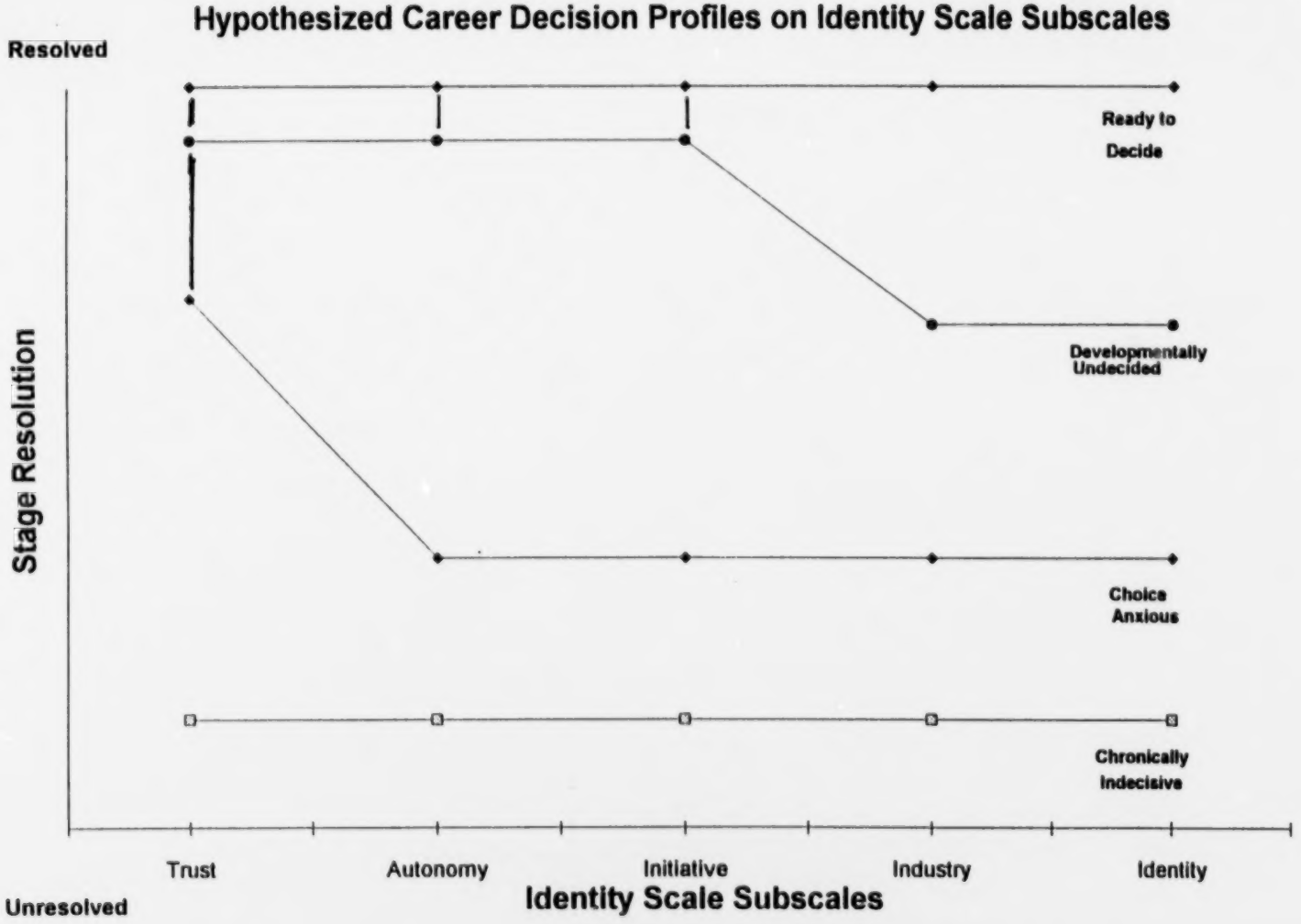
poor problem solving self-confidence (Larsen et al., 1988).

While much research has been conducted to identify groups of career undecided individuals, only recently have these classifications been used in actual treatment outcome studies. Lucas (1993) found that when career clients were classified at intake into different career undecided clusters groups, the cluster groups did not differ significantly in age, vocational identity, or number of counseling sessions. This suggests that in addition to clinical interviews, standard measures are needed to more accurately assess characteristics that differentiate career groups.

In another recent study Heppner and Hendricks (in press) examined the process of change and the outcome of short term therapy with two male clients, one undecided and one indecisive. They found that the undecided client gained more vocational clarity and decidedness from career counseling than did the indecisive client. Additionally, they found the working alliance that developed for the undecided client/counselor dyad was stronger than in the indecisive client/counselor pair. This suggests that trust plays a key role in the outcome of therapy.

Overall, research has found similar cluster groups, or career decisional subtypes, as well as preliminary support for differential treatment process and outcome for individuals who experience similar career decision making difficulties. These studies do not, however, explain why these different cluster groups exist.

Other research (Chartrand et al., 1990; Osipow et al., 1976; Valliant &


Hypothesized Career Decision Profiles on Identity Scale Subscales
Resolved
Stage Resolution
Unresolved
Ready to Decide
Developmentally Undecided
Choice Anxious
Chronically Indecisive
Trust
Autonomy
Initiative
Industry
Identity
Identity Scale Subscales

Valliant, 1981; Weyhing et al., 1984) suggests that there may be underlying factors influencing career indecision. Vondracek et al. (1993) suggest that it is likely that the direction of causality flows from the larger construct of identity status to the smaller more specific construct of career indecision. In light of the research on career decisional subtypes, it seems that an investigation of the relationship between ego identity development and career indecision subtypes would present more specific information about the nature of indecision and identity development.

I propose to extend previous research by exploring the direct relationship between the first five stages of Erikson's psychosocial model and the four cluster groups found in the investigation by Chartrand et al. (1994). Of the four cluster groups, the Ready to Decide group appears to be the highest functioning, followed by the Developmentally Undecided group, the Choice Anxious group, and the Chronically Indecisive group. Thus it is predicted that those in the Ready to Decide group will have the most successful resolution of the psychosocial stages, followed by the other three groups in the aforementioned order. Specific hypotheses are represented in Figure 1.

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Insert Figure 1 about here

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On each subscale, all groups are hypothesized to score significantly different

from all others, with the exception of those connected by a vertical line. Specifically, on the Industry and Identity subscales the Ready to Decide group will score significantly higher than the Developmentally Undecided, Choice Anxious, and Chronically Indecisive groups. The Developmentally Undecided group will score significantly higher than the Choice Anxious and the Chronically Indecisive groups. The Choice Anxious group will score significantly higher than the Chronically Indecisive group. For the Initiative, Autonomy, and Trust subscales similar specific hypotheses were made with the following exceptions: no hypotheses were made concerning differences between the Ready to Decide group and the Developmentally Undecided group. Additionally, no hypothesis was made concerning differences between the Developmentally Undecided group and the Choice Anxious group on the Trust subscale.

## Method

### Participants

Participants for this investigation were 423 students between the ages of 18 and 26 from various undergraduate psychology classes at five southeastern universities and colleges. Students from introductory psychology classes were required to participate in research projects for their grade. Thus, students from these classes were given one credit towards their research participation requirement. Instructors from other

psychology classes agreed to provide extra credit for students who volunteered to participate in this investigation.

Instruments

Career Factors Inventory (CFI; Chartrand et al., 1990). The CFI, a 21-item scale, consists of four subscales which measure both personal-emotional and informational content areas. These are Career Choice Anxiety (6 items), Generalized Indecisiveness (5 items), Need for Career Information (6 items), and Need for Self-Knowledge (4 items). Two week test-retest reliability estimates for the four subscales range from .79 to .84. Internal consistency estimates for the four subscales range from .73 to .86. Estimates for convergent, discriminant, and construct valididty has been reported (Chartrand & Robbins, 1990; Chartrand et al., 1994).

Identity Scale This 93-item self-report questionnaire was developed by Ochse and Plug (1986) to measure stage resolution for the first seven stages of Erikson's psychosocial theory of ego development. The scale was piloted and tested on a heterogeneous group of individuals from 15 to 60 years of age including students, laypersons, and individuals from various professions in South Africa. The scale is composed of eight subscales. Seven subscales measure the degree of resolution of each of the first seven ego identity stages, and one subscale is a measure of social desirability. For the purposes of this investigation only the subscales measuring the

first five stages and the social desirability subscale were used. Internal consistency estimates for the subscales range from .65 to .83, and from .90 to .93 for the total scale. Lower internal consistencies are reported for South African blacks than for South African whites. Convergent validity was indicated by significant positive correlations between the subscales and a measure of Well-Being for white participants but this result was not obtained in data from black participants. The authors noted that the black participants were from more than ten different language groups, and most completed the questionnaire in English. Thus, the scale may not have been appropriate for this group.

Procedure

This project was part of a larger study. All students who volunteered to participate in this investigation received a packet that contained an instruction sheet, a demographic variable form, an informed consent form, and eight questionnaires, two of which were used for this study. Questionnaires were arranged in random order to eliminate possible order effects. Upon returning the packets participants received a debriefing form explaining the purpose and predictions of the investigation.

Data Analysis

Using the CFI, four career decision groups, Ready to Decide, Developmentally Undecided, Choice Anxious, and Chronically Indecisive, were formed from the centroids of the four clusters reported in the Chartrand et al. (1994) study. A centroid

is the mean of the means of scales comprising a cluster, which in this study was a four element vector. Each cluster centroid was the mean of the four CFI subscale means. For each participant, distance scores were calculated from the participant's score on each CFI subscale to each subscale mean of the four cluster centroids. Scores were summed to provide an overall measure of distance from each cluster centroid. Each participant was then assigned to the cluster for which the distance to the cluster's centroid was smallest. If the distance between a participant's data and any two centriods were equal, that participant's data was not included in the analyses. See Table 1 for centroids and parameters used to determine clusters.

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Insert Table 1 about here

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A profile analysis was then conducted to compare the Identity profiles of participants in the four career decision groups. Profile analysis provides a test for level, shape, and parallelism. The level test, similar to a main effect test for Group, compares each cluster group against the others averaging over the subscales. Shape, similar to the main effect for Subscale, tests the averaged group means compared across the five subscales. Parallelism, the interaction effect, tests whether the pattern of means across the subscales is identical for the four cluster groups.

Profile analysis requires that participants from each cluster group be tested on

multiple scales having the same metric. To assure commensurability, scales were standardized through regression using the within groups standard deviation, as recommended by Tabachnik and Fidel, p. 440 (1989). The standardized residuals from the regression comprised the data on which the profile analysis was performed.

Ochse and Plug (1986) note that social desirability may present a problem when measuring Erikson's stages due to the highly valued nature of the positive aspects of the personality characteristics described by Erikson. As such they included a social desirability subscale in their Identity Scale and removed the effects of social desirability when conducting analyses from Identity Scale data. For this reason social desirability, as measured by Ochse and Plug's (1986) social desirability subscale, was used as a covariate in this study.

Tests for level, shape, and parallelism were conducted. Simple contrasts were then conducted to test the twenty five specific a priori comparisons in the hypotheses. To control Type I error for repeated comparisons alpha was adjusted to .04 based on the Modified Bonferroni procedure (Keppell, 1991).

## Results

### Preliminary Analyses

Prior to conducting the profile analysis, the following tests were conducted. Variance-covariance matrices were checked for homogeneity of variance. The data

were examined to assure that the assumptions regarding multivariate normality, linearity, and multicolinearity were met. Data were checked for outliers that were three standard deviations from the mean. Three outliers were found, but these were included in the analyses due to their minimal influence in a large sample.

The Identity Scale was originally develped in a South African population. Preliminary analyses were therefore conducted to explore the psychometric properties of this scale on an American population sample. Subscale sample means, standard deviations, and internal consistency estimates for the Identity Scale (see Table 2) were found to be adequate and comparable to those found in the original South African sample.

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Insert Table 2 about here

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To check for possible differences due to gender and ethnicity, t-tests were performed on the five Identity subscale means and the four CFI subscale means. To control for increased Type 1 error due to repeated tests, alpha was adjusted to .04 based on the Bonferroni Adjustment procedure (Keppell, 1991). Results from t-tests on Caucasian (n = 277) and African-American (n = 60) participants revealed no significant differences on the Identity Scale subscales. A significant difference was

found for ethnicity on the Career Choice Anxiety subscale ($t$ = -2.08, $p$ = .034). Caucasians reported slightly more career choice anxiety (M = 15.86) than African-Americans (M = 14.44). The results of t-tests comparing women (n = 275) and men (n = 102) revealed no differences on the Identity subscales. On the CFI subscales, women scored significantly higher than men on Career Choice Anxiety (t = -2.75, $p$ = .007), on Generalized Indecisiveness (t = -5.02, $p$ = .000) and on Need for Self Knowledge (t= -2.16, $p$ = .03).

Tests of Hypotheses

The results of the profile analysis are illustrated in Figure 2, and will be reported in two parts. First, overall tests will be reported. Then, specific contrasts which address the hypotheses will follow. Using Wilks' criterion, for the levels test significant differences were found among career decision groups when scores were averaged over all Identity subscales, $F$ (3,342) = 31.11, $p \leq .001$). This suggests that career decision groups differed in their psychosocial development. The profiles deviated significantly in terms of parallelism, $F$ = (12,897) = 2.50, $p \leq .01$, eta squared = .08, which suggested that different career decision groups had different degrees of resolution on the five Identity subscales. While no hypotheses were related to the test for shape, subscales averaged across groups were found to deviate significantly from a flat proflie, $F$(4,339)=6.90, $p \leq .001$.

Insert Table 3 about here

Next, simple contrasts were conducted to examine career decision group differences for each Identity subscale. Career decision group means and standard deviations on Identity subscales are presented in Table 3. Simple contrasts indicated career decision group differences for the Trust, Industry, and Ego Identity subscales (See Figure 2). On the Trust, Industry, and Ego Identity subscales the Ready to Decide Group scored significantly higher than the Developmentally Undecided Group, the Choice Anxious Group, and the Chronically Indecisive Group ($p \leq .04$). The Developmentally Undecided Group and the Choice Anxious Group scored significantly higher than the Chronically Indecisive Group. There were no significant differences between the Developmentally Undecided Group and the Choice Anxious Group.

Insert Figure 2 about here

Slightly different patterns of career decision group differences were found on the Autonomy and Initiative subscales (See Figure 2). On the Autonomy subscale the Ready to Decide Group scored significantly higher than all other career decision groups. The Developmentally Undecided Group scored significantly higher than the Chronically Indecisive Group, but not significantly higher than the Choice Anxious

Group. The Choice Anxious Group did not score significantly higher than the Chronically Indecisive Group.

On the Initiative subscale there were no significant differences between the Ready to Decide Group and the Developmentally Undecided Group. The Ready to Decide group scored significantly higher than the Choice Anxious and the Chronically Indecisive groups. The Developmentally Undecided Group scored significantly higher than both the Choice Anxious and the Chronically Indecisive groups. The Choice Anxious Group did not score significantly higher than the Chronically Indecisive Group.

Five of the previous thirty tests were conducted post-hoc, with alpha adjusted to .04 to control for Type I error based on the Modified Bonferroni procedure (Keppell, 1991). Differences between the Ready to Decide group and the Developmentally Undecided Group on the Trust, Autonomy, and Initiative subscales, and differences between the Developmentally Undecided and the Choice Anxious Group for the Trust subscale were not originally hypothesized.

## Discussion

The goal of this study was to investigate the relationship between Erikson's identity development stages and career decision subtypes. It was predicted that those who resolved the first five psychosocial stages of identity development most successfully would report fewer difficulties in making a career decision. The four

career decision groups were predicted to differ in their degree of resolution across the five psychosocial stages, with the groups having the most decision difficulties reporting the least successful resolution. Results from the profile analyses suggest that there are important developmental differences in ego identity for those experiencing different types of career decision making difficulties. The Ready to Decide group, who reported the fewest decision difficulties, had the most successful resolution across all identity stages, while the Chronically Indecisive group, who reported the most decision difficulties, had the least successful resolution. The Ready to Decide group had significantly more successful resolution across all psychosocial stages than did the Choice Anxious group, who reported decision difficulties largely centered around anxiety. The Developmentally Undecided group, those whose decision difficulties seem to center around a need for career information, reported significantly more successful resolution across all psychosocial stages than did the Chronically Indecisive group. The Developmentally Undecided and the Choice Anxious groups differed significantly only on the Initiative substage.

Overall, it appears that differences in identity development are related to the kinds of career decision difficulties individuals experience. While the differences in the earlier stages of trust, autonomy, and initiative are moderate, career decision groups begin to differentiate dramatically during the stages of industry and ego identity (See Figure 2). Positive ego qualities are cumulative and facilitate psychosocial growth

(Erikson, 1980). It may be that deficiencies in positive ego qualities, which result from less successful resolution of the psychosocial stages, are also cumulative, and may hinder the individual's ability to gain positive ego qualities. For instance, a sense of trust is needed for a child to go into the world and successfully resolve the crisis of autonomy versus shame and doubt. Emerging with a sense of autonomy, the child is then prepared to take initiative in the world instead of sitting by idly waiting for things to happen, thus successfully resolving the initiative versus shame and doubt crisis. On the other hand, the child who does not have a developed sense of trust will not feel safe enough to test boundaries and develop a substantial sense of autonomy.

Likewise, it may be inferred that the Chronically Indecisive individuals, who scored significantly lower than all other groups on the Industry and Identity subscales, find themselves unprepared to accomplish the tasks of these two stages. Instead of gaining a sense of industry, these individuals are left with a sense of inferiority, working to avoid failing instead of working to succeed, and lacking confidence in their ability to be productive members of society. It may be that this sense of inferiority renders them paralyzed in decision making, especially career decision making. In comparison, the Developmentally Undecided group, who resolved all psychosocial stages more successfully than the Chronically Indecisive group, experience less generalized decision making difficulties and less severe career decision making difficulties.

Limitations

Before discussing how these findings might be useful in counseling, several limitations must be noted. The first concerns the scales used in the analyses. First, there were no norms for the Identity Scale. However, the means for whites in the original scale development sample, a South African population, and this sample, a North American population, were comparable. Second, subscales were highly correlated (ranged from .48 to .75). It may be that this instrument is measuring one construct of overall psychosocial identity rather than resolution of psychosocial stages. Third, internal consistency and validity estimates for the Identity Scale were based on a single study. Thus, the degree to which this scale measures the Erikson's constructs of psychosocial stage resolution needs further validation.

Career decision groups formed for this study were based on clusters from a previous cluster analysis study (Chartrand et al, 1994). Cluster analysis itself has limitations, in that different methods of clustering can result in different cluster groups (Blashfield, 1980). Thus results of the current study must be interpreted with some caution. Lastly, all scales used in this study were self-report and thus are subject to bias. It may be that self report of valued personality characteristics, such as those measured in the Identity Scale, is biased in a positive direction. This limitation was addressed through the use of social desirability as a covariate in the analyses.

Counseling Implications

With these limitations in mind, results from this study have implications for counseling interventions with career clients. Career interventions often begin with career exploration and an assumption that clients have established a basic level of vocational identity. Such interventions assume that clients have resolved previous psychosocial stages successfully and are ready to deal with more advanced identity issues. Ideally, interventions help individuals gain some of the ego qualities they lack, eventually enabling them to accomplish tasks, such as making a career decision, they are facing in their current stage of life. Results of this study suggest that interventions cannot begin at the identity stage for individuals who are experiencing certain types of career decisional difficulties.

In this study there were four different career decision groups. Differences found in the psychosocial development of these career decision groups suggest that different career interventions may be appropriate for each. Based on Erikson's theory, it seems that individuals in the Ready to Decide group have resolved the identity stages well and are experiencing relatively few career difficulties. Thus, referral to career information handbooks or computerized assistance programs would be useful for them. Developmentally Undecided individuals, who have resolved the Industry and Identity stages fairly well, are also likely to benefit from career information handbooks or computerized assistance programs. In addition, brief counseling designed to help solidify their sense of industry and identity through exploration of values and career

goals may be useful. Counseling chould also inform them about the process of making a career decision, helping them to explore alternatives and gain career information.

Less is known about the Choice Anxious group than other career indecision groups, and thus inferences about appropriate interventions are more general. However, speculations can be made based on the characteristic high level of anxiety (Chartrand et al., 1994) , and on the lack of differentiation between the Choice Anxious group and the Developmentally Undecided group. It seems that for those who are Choice Anxious, interventions should be similar to interventions for Developmentally Undecided individuals, with an added focus of helping them to handle excessive anxiety.

Individuals in the Chronically Indecisive group resolved all psychosocial crises least successfully, so interventions should address earlier psychosocial stage tasks by helping them to gain a better sense of trust, autonomy, and industry. The focus of counseling may need to be on the individual's trust that the therapist would or could help them with their career difficulty (trust); ability to disclose (trust); general degree of openness to people and ideas (trust); the ability to identify and express to others personal likes and dislikes, especially those related to possible careers (autonomy); separation from parents (autonomy); the ability to take control over life situations calling for action, such as going out and finding information about possible careers (initiative); increasing the person's sense of personal adequacy, especially translating it

into a sense of success in a career (initiative); or increasing comfort with the ambiguity of new challenges, such as testing the waters of new career areas through volunteering (industry). Once these issues are somewhat resolved, and inferred ego qualities are gained, counseling can then begin to focus on tasks of industry and identity. Case study research (Heppner and Hendricks, in press) suggests that these issues should be related as much as possible to the client's presenting problem to increase positive treatment outcome.

Future Research

Future research in this area should focus on developing and testing the aforementioned career interventions for each career decision group. Another direction for future research is in refining the scales available to measure psychosocial stage resolution. Additionally, linking the measurement of stage resolution with behaviors, such as those listed by Hamachek (1988), would enhance the use of Erikson's theory in current research. Specifically, linking stage resolution to career development behaviors would advance the use of psychosocial development assessment, especially in terms of treating career decision difficulties. Finally, future research is needed to better understand antecedents, concomitants, and consequences of career decisional constructs. For example, investigating the relationship of coping strategies, role models, influences from the family of origin, and multiple role issues to career decision difficulties would expand researchers' and therapist's understanding of these

difficulties. In turn this would increase our ability to be of service to clients with these career decision difficulties.

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Table 1

Centroid Parameters (CFI Subscale Means for Each Cluster) Used to Determine Career Decision Cluster Groups

| Career Factors Inventory Subscales | Cluster Group: Ready to Decide | Developmentally Undecided | Choice Anxious | Chronically Indecisive |
|---|---|---|---|---|
| Career Choice Anxiety | 11.76 | 16.68 | 19.86 | 20.86 |
| Generalized Indecisiveness | 9.72 | 13.71 | 15.35 | 18.45 |
| Need for Career Information | 14.03 | 23.31 | 18.28 | 25.17 |
| Need for Self-Knowledge | 7.00 | 10.98 | 11.33 | 15.82 |

Note: Sample size for the Career Factors Inventory ranged from 377 to 396.

Table 2

Subscale Means, Standard Deviations, and Internal Consistency Estimates for the Identity Scale

| Identity Scale Subscales | Number of Items | Possible Range | Mean | SD | R |
|---|---|---|---|---|---|
| Trust | 10 | 10 - 40 | 25.96 | 3.72 | .71 |
| Autonomy | 8 | 8 - 32 | 27.09 | 3.72 | .71 |
| Initiative | 9 | 9 - 36 | 27.37 | 3.62 | .69 |
| Industry | 11 | 11 - 44 | 33.77 | 4.74 | .83 |
| Identity | 19 | 19 - 76 | 57.87 | 8.02 | .88 |

Note: Sample size for the Identity Scale ranged from 377 to 396.

Table 3

Standardized Career Decision Group Means and Standard Deviations on Identity Scale Subscales

| | Career Decision Groups | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Ready to Decide | | Developmentally Undecided | | Choice Anxious | | Chronically Indecisive | |
| | n = 160 | | n = 112 | | n = 95 | | n = 56 | |
| Identity Scale Subscale | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Trust | .34 | .93 | -.01 | .89 | -.17 | .85 | -.55 | 1.03 |
| Autonomy | .37 | .85 | -.10 | 1.0 | -.25 | .96 | -.44 | 1.01 |
| Initiative | .29 | .92 | .09 | .93 | -.29 | 1.11 | -.51 | 1.03 |
| Industry | .43 | .88 | .01 | .95 | -.27 | .88 | -.80 | .98 |
| Identity | .46 | .94 | -.06 | .86 | -.22 | .86 | -.75 | 1.05 |

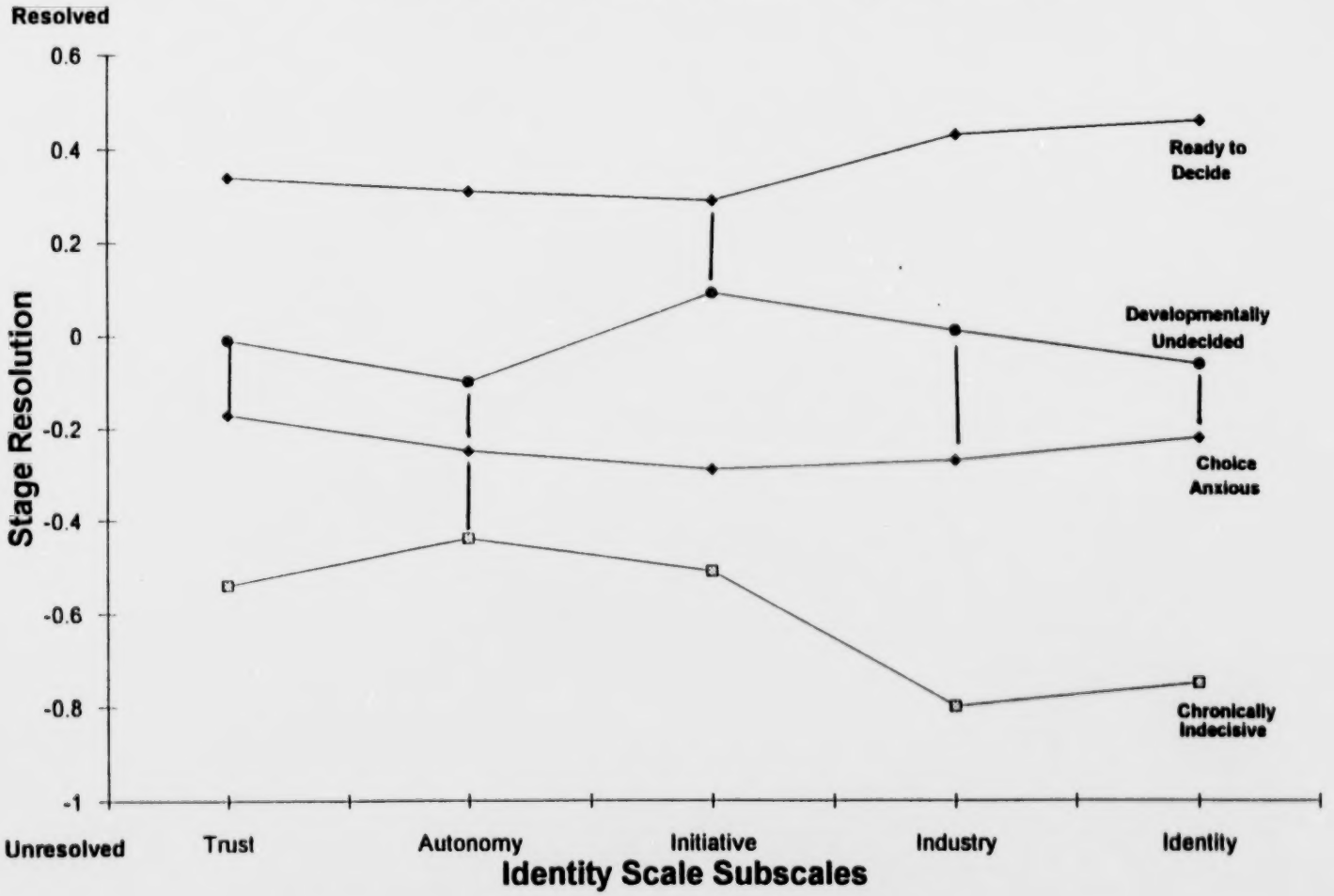




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Figure Captions

Figure 1. Hypothesized career decision profiles on Identiy Scale subscales.

Figure 2. Identity Scale scores by career decision group

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